

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

25 (previously presented). A purified collagenase inhibitor protein, said protein consisting essentially of an amino acid sequence selected from among the following:

a) amino acid sequence SEQ ID NO: 2; or
b) the amino acid sequence of a) or of SEQ ID NO: 1, further having a Met at position -1; or

c) the amino acid sequence of a) or of SEQ ID NO: 1, further having a leader sequence at the N-terminal, -1 position, wherein said leader sequence consists essentially of the following amino acid sequence from positions -38 to -1:

Gly His Arg Arg Arg Ser Ser Ala Gln Arg Asp Thr Arg Glu Pro Thr Met Ala Pro Phe Asp Pro Trp Leu Leu His Pro Val Val Ala Val Ala Asp Ser Pro Ser Arg Ala (SEQ ID NO: 3);
or

d) the amino acid sequence of a) or of SEQ ID NO: 1, further having a leader sequence at the N-terminal, -1 position, wherein said leader sequence consists essentially of the following amino acid sequence from positions -22 to -1: Met Ala Pro Phe Asp Pro Trp Leu Leu His Pro Val Val Ala Val Ala Asp Ser Pro Ser Arg Ala (SEQ ID NO: 4).

26-43 (canceled).

44 (new). A purified collagenase inhibitor protein, said protein consisting essentially of an amino acid sequence selected from:

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

- a) amino acid sequence SEQ ID NO: 1 or amino acid sequence SEQ ID NO: 2, wherein a glutamine (Glu) at position 28 is substituted by an asparagine;
- b) amino acid sequence SEQ ID NO: 1 or amino acid sequence SEQ ID NO: 2, wherein a threonine (Thr) at position 43 is substituted by a methionine;
- c) amino acid sequence SEQ ID NO: 1 or amino acid sequence SEQ ID NO: 2, wherein a glycine (Gly) at position 48 is substituted by a glutamine;
- d) amino acid sequence of SEQ ID NO: 1, wherein an alanine (Ala) at position 111 is substituted by an arginine;
- e) amino acid sequence of SEQ ID NO: 1, wherein a glutamine (Glu) at position 125 is substituted by a cysteine;
- f) amino acid sequence of SEQ ID NO: 1, wherein a threonine (Thr) at position 128 is substituted by a phenylalanine;
- g) the amino acid sequence of (a), (b), (c), (d), (e), or (f), further having a Met at position -1;
- h) the amino acid sequence of (a), (b), (c), (d), (e), or (f), further having a leader sequence at the N-terminal, -1 position, wherein said leader sequence consists essentially of the following amino acid sequence from positions -38 to -1:

Gly His Arg Arg Arg Ser Ser Ala Gln Arg Asp Thr Arg Glu Pro Thr Met Ala

Pro Phe Asp Pro Trp Leu Leu His Pro Val Val Ala Val Ala Asp Ser Pro Ser

Arg Ala (SEQ ID NO: 3); and

- i) the amino acid sequence of (a), (b), (c), (d), (e), or (f), further having a leader sequence at the N-terminal, -1 position, wherein said leader sequence consists essentially of the following amino acid sequence from positions -22 to -1:

Met Ala Pro Phe Asp Pro Trp Leu Leu His Pro Val Val Ala Val Ala Asp Ser
Pro Ser Arg Ala (SEQ ID NO: 4).

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